

# Muhammad Ismail Daniyal

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## Professional Summary

I am a 8th semester student with a strong aptitude for coding and a profound interest in AI and Web Development. Throughout my academic journey, I have cultivated robust skills in software development, focusing on writing efficient and scalable code. Additionally, I thrive in collaborative settings, showcasing my ability to work effectively within a team. With a solid foundation in coding and a keen curiosity for emerging technologies, I am eager to delve deeper into the intricacies of AI/ML models and database systems, poised to make significant contributions in these domains.

## Education

**FAST National University of Computer & Emerging Science, B.S Computer Science**      Sep, 2021 - Ongoing  
**Relevant Coursework:** Data Structures and Algorithm, Operating System, Software Design and Analysis, Database Systems, Web Programming, Artificial Intelligence

## Skills

**Software Design and Analysis** (Requirement Specification, Software Architectural Designing, Data Collection)

**Web Development** (JavaScript, Node.JS, React.JS, Express.JS, Next.JS, MongoDB, SQL, MySQL, MVC Architecture, EJS, AJAX, Fast API, Git)

**Programing** (C++, C# (windows Form), Linux, Data structure, Oracle Database, Python)

## Work Experience

**Teaching Assistant - Data Structures/ Operating System (6 Months)**      **FAST NUCES**  
Sept, 2022 – Feb,2023

- Assisted students in understanding complex data structure concepts, reinforcing my own understanding and strengthening my grasp on data structures.
- Through teaching and guiding others, I deepened my knowledge of data structures and enhanced my problem-solving skills, contributing to a more comprehensive understanding of the subject.

## Freelance Software Developer

**Duration:** [Sep 2022] - [ongoing]

- Developed a cheeky cow application using C++ and C#, implementing playful animations and interactive features to engage users.
- Contributed to the development of billing systems in both C# and C++, ensuring efficient processing of transactions and accurate financial reporting.
- Demonstrated strong teamwork and communication skills through effective collaboration with clients and team members.

## Projects ([github.com/ismaildaniyal](https://github.com/ismaildaniyal))

**Text Editor**      **C++**

- Led the development of a Text Editor, incorporating a suggestion engine and Huffman encoding for efficient data handling, enhancing user experience.

**Inventory Management System**      **Oracle 11g SQL, C#**

- Spearheaded the creation of an Inventory Management System, streamlining product tracking, inventory management, and sales data analysis for businesses.

**Battle Ship Game**      **C++**

- The Battleship game is a console based strategic two-player board game where each player deploys a fleet of ships on a grid and takes turns trying to locate and sink the opponent's fleet. This project provides a console-based version of the game, offering an interactive and engaging experience.

**Leveraging Large Language Models (LLMs) for Wikipedia Data Retrieval and Question Answering**      **Python**

Developed and trained a large language model (LLM) and (NLP) to read and interpret data from Wikipedia, enabling it to generate accurate answers based on user prompts.

## Artificial Intelligence ( Sudoku Puzzle Solving using A Algorithm and Backtracking)

Python

Developed an efficient solution for solving Sudoku puzzles by implementing a combination of the A\* algorithm and backtracking, showcasing expertise in algorithm design and problem-solving techniques.

## Weather App

(React.js, API Integration)

Developed a web-based weather app that provides real-time weather information based on user location, using React.js for the front-end and external weather APIs for data retrieval.

## Pak Railway Web Platform

(Node.js, Express.js, MongoDB)

Currently developing a full-stack web application for Pakistan Railways, with functionalities like ticket booking, schedule tracking, and user management, leveraging Node.js for the back-end and MongoDB for database management.

## Text-to-Floor Plan Generation (2D/3D)

Developed an AI model that generates 2D floor plans from textual descriptions using deep learning algorithms.

## NLP-Based Chatbot

Built an NLP-based chatbot using Python and natural language processing techniques to assist users in retrieving information.

Integrated machine learning algorithms for intent recognition, using libraries like NLTK and spaCy.

## Hobbies and Interests

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- Sports
- Gaming